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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,359	06/13/2005	Dirk Rottger	273059US0XPCT	5796
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
CHUNG, SUSANNAH LEE				
ART UNIT		PAPER NUMBER		
1626				
NOTIFICATION DATE		DELIVERY MODE		
04/24/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/538,359

Applicant(s)

ROTTGER ET AL.

Examiner

SUSANNAH CHUNG

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date 6/13/05, 3/13/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-9 are pending in the instant application.

Priority

This application is a 371 of PCT/EP03/11773, filed on 10/24/2003.

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) by application no. 10257938.5 filed in the German Patent Office on 12/12/2002, which papers have been placed of record in the file. The application names an inventor or inventors named in the prior application.

Information Disclosure Statement

The information disclosure statements (IDS), filed on 6/13/05 and 3/13/06 have been considered. Please refer to Applicant's copy of the 1449 submitted herewith.

Response to Election/Restrictions

Applicant's election of species without traverse of the compound in the Table on page 6 of the specification in the reply filed on 03/17/2008 is acknowledged.

All claims have been examined. Because all claims previously withdrawn from consideration under the election of species requirement mailed on 1/16/2008, the election of species requirement is withdrawn.

Claim Rejections - 35 USC § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, because the specification although enabling for a process for preparing a final product of formula (I), wherein two of R1, R2, R3, and/or R4 come together to form a 5 membered heterocyclic ring, it is not enabled for a process for preparing all metal complexes without limitation (i.e. no formula in claims 1 or 2). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Dependent claims 2-8 and independent claim 9 is also rejected under 35 USC 112, 1st paragraph.

As stated in MPEP 2164.01(a), "there are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue."

The factors to be considered when determining whether a disclosure meets the enablement requirement of 35 USC 112, first paragraph, were described in In re Wands, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) as:

1. the nature of the invention;
2. the breadth of the claims;
3. the state of the prior art;
4. the relative skill of those in the art;
5. the predictability or unpredictability of the art;
6. the amount of direction or guidance presented (by the inventor);
7. the presence or absence of working examples; and
8. the quantity of experimentation necessary (to make and/or use the invention).

The eight Wands factors are applied to Claims 1-9 of the present invention below:

(1) The Nature of the Invention

The nature of the invention is a process of making a metal complex.

(2) The Breadth of the claims

The breadth of independent Claims 1 and 9 encompasses products, wherein there is no structure for the final metal complex product and wherein R1, R2, R3, or R4 could or could not be a heterocyclic ring. The applicable rule for interpreting the claims is that “each claim must be separately analyzed and given its broadest reasonable interpretation in light of and consistent with the written description.” See MPEP 2163(II)(1), citing In re Morris, 127 F.3d 1048, 1053-1054; 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). In view of this rule, the products of the process of making of the metal complex may reasonably be interpreted to encompass an infinite number of combinations that involve heterocyclic and non-heterocyclic compounds.

(3) The state of the prior art

Complexes of metals are a vast field, but in the instant case prior art can be found on compounds wherein the complex is a heterocyclic, nitrogen containing complex. (see McGuinness et al, referenced above.)

(4) The relative skill of those in the art

The level of skill in the art (pharmaceutical chemists, physicians) would be high.

(5) The predictability or unpredictability of the art

The complexes claimed in the instant application, where the variables of the compound of formula (II) and (III) can be open to heterocyclic and nonheterocyclic compounds include an extremely large scope of the potential products as encompassed by Claim 1 rendering the prior art unpredictable for making or using products as claimed on such a grand scale.

(6) The amount of direction or guidance presented (by the inventor)

The specification in the present invention discloses chemical examples of the species of the compounds found in claim 2, i.e. nitrogen containing 5-membered heterocyclic compounds only. The process of making the metal complex with anything other than these compounds is unpredictable.

(7) The presence or absence of working examples

The specification has no working examples of where the core compound is anything but a nitrogen containing 5-membered heterocyclic compound.

(8) The quantity of experimentation necessary (to make and/or use the invention)

Given the absence of direction or guidance (or working examples) in the specification for any of the extremely large number of compounds that would be encompassed by the descriptions R1, R2, R3, and R3, it would cause a skilled artisan an undue amount of experimentation to determine which product the process of making was describing. Also, a skilled artisan would not be able to predict if the instantly claimed process would work. Therefore, to overcome this rejection, the scope of the metal complex should be defined to those compounds with support in the specification. For example, the compounds of formula (I), wherein two of R1, R2, R3, or R4 come together to form a 5-membered heterocyclic ring complex.

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP §2172.01. The omitted steps are the reagents used and specific steps of preparing the complexes of metals of groups 6 to 10. Claim 1 states that a metal is "reacted" with a compound of formula (II) or formula (III), but does not state any further steps. There is also no description of the final product in claims 1 or 2 (see 112 rejection).

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The "complexes of metals of groups 6 to 10 of the Periodic Table of the Elements" is not described in Claim 1. The complex of claim 3 should be inserted into claim 1 to overcome this rejection.

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 provides for the use of compounds II and/or III, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is

intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. In addition, Claim 9 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites the limitation "II" and "III" in line 1. It is unclear what "II" and "III" are referring. There is no chemical structure. Is it referring to the compound of formula (II) and (III) from the specification? Applicants are reminded that claims must stand alone to define the invention and incorporation into claims by express reference to the specification is not permitted. *Ex parte Fressola*, 27 USPQ 2d 1608.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by McGuinness, et al (J.A.C.S., Vol. 123, No. 34, 2001).

Applicant claims a process of preparing complexes of metals of groups 6 to 10 of the Periodic Table of the Elements by "reacting" a compound of a metal of groups 6 to 10 of the Periodic Table of the Elements with compounds of formula (II) or formula (III).

McGuinness discloses a process of preparing complexes of metals of groups 6 to 10 of the Periodic Table of the Elements by suspending the iodoimidazolium salt (i.e. a compound of formula (II) or (III)) in a THF solution of $\text{Pt}(\text{PPh}_3)_4$ and heated to 60°C , the iodo Pt-carbene complex $[\text{Pt}(\text{tmiy})(\text{PPh}_3)_2]\text{BF}_4$ was formed in 89% yield. In addition to using Pt, oxidative addition reactions using Pd and Ni are also demonstrated (See page 8318, reaction 1, and page 8320, reaction 2). Therefore, McGuinness discloses every patentable limitation of the instant claims and the claims are rendered anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGuinness et al., J.A.C.S., Vol. 123, No. 34, 2001.

Claims 1-9 of Applicant's instant elected invention teaches a process of preparing complexes of metals of groups 6 to 10 of the Periodic Table of the Elements by "reacting" a compound of a metal of groups 6 to 10 of the Periodic Table of the Elements with compounds of formula (II) or formula (III).

Determination of the scope and content of the prior art (MPEP § 2141.01)

McGuinness discloses a process of preparing complexes of metals of groups 6 to 10 of the Periodic Table of the Elements by suspending the iodoimidazolium salt (i.e. a compound of formula (II) or (III)) in a THF solution of Pt(PPh₃)₄ and heated to 60°C, the iodo Pt-carbene complex [Pt(tmiy)(PPh₃)₂]BF₄ was formed in 89% yield. In addition to using Pt, oxidative addition reactions using Pd and Ni are also demonstrated (See page 8318, reaction 1, and page 8320, reaction 2).

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

The difference between the prior art of McGuinness and the instant claims is that the prior art is silent as to additional metals of groups 6 to 10 of the Periodic Table, wherein the instant application discloses that Ru, Rh, Ni, Pd, or Pt are preferred.

Finding of prima facie obviousness - rationale and motivation (MPEP § 2142-2413)

One skilled in the art would have found the claimed process prima facie obvious because the instantly claimed process and the process in McGuinness are describing the same process and are obtaining the same product.

The instant application claims Group 6-10 metals, but it is well known in the art that a skilled artisan knows that if Pt, Pd, and Ni are disclosed that it is inherent that all Groups 6 to 10 metals are considered. (For example, see US Pat. No. 7,235,698, which discusses that a metal selected from Groups 6-10 in the Periodic Tables are customary metals (column 10, approx. lines 23-26). Also see claim 57, which discloses the instantly claimed metals Ru, Rh, Ni, Pd, and Pt, but more specifically claims a specific metal such as Pd in claim 59.)

In conclusion, one skilled in the art may assume that since the products of the processes are the same that the enhancements made to the process in the instant application, would share the same properties as the prior art of McGuinness. Therefore, the instant claims are obvious in view of McGuinness to one of ordinary skill in the art.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susannah Chung whose telephone number is (571) 272-6098. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/REI-TSANG SHIAO /

Primary Examiner, Art Unit 1626

SLC, 4/17/2008